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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,711	01/22/2002	Edward Rebar	8325-0025	6236

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EXAMINER

DUNSTON, JENNIFER ANN

ART UNIT	PAPER NUMBER
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1636

MAIL DATE	DELIVERY MODE
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06/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/055,711	Applicant(s) REBAR ET AL.	
	Examiner Jennifer Dunston	Art Unit 1636	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 May 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See continuation sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): See continuation sheet.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____
Claim(s) objected to: 57.
Claim(s) rejected: 2, 4, 22, 25-28, 30-32, 36, 37, 39-41, 53-56 and 58-61.
Claim(s) withdrawn from consideration: 1, 3, 5, 23, 24, 33-35, 38 and 42-52.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See continuation sheet.
12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). 5/14/2007
13. ☐ Other: _____

CONTINUATION SHEET

The amendment filed 5/14/2007 under 37 CFR 1.116 in reply to the final rejection has NOT been entered. The final Office action, mailed 1/11/2007, is maintained.

The proposed amendment to claim 30 to include the limitations "wherein the target sequence is in a plant cell" raises new issues that require further search and/or consideration. This limitation was present in claim 22 and has been imported into claim 30. This creates a new combination of limitations for the other claims that depend from claim 30. These combinations of limitations have not been previously considered. Thus, further search and consideration would be required.

At pages 7-8, the response traverses the restriction requirement. Applicant's arguments regarding rejoinder have been fully considered but are not persuasive for the reasons of record in the Office actions mailed 2/9/2005 and 11/15/2005.

With respect to the rejection of claims 2, 4, 22, 25-28, 30-32, 36, 37, 39-41 and 53-56 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, Applicant's arguments filed 5/14/2007 have been fully considered but they are not persuasive.

The response asserts that the Examiner has acknowledged that one can clearly envision the proteins encoded by the claimed nucleic acids. While one can envision the primary amino acid sequences encompassed by the claims, one cannot predict which of those primary sequences will be capable of forming the required secondary structure (i.e., beta-turn and alpha-helix) such that the polypeptide is capable of binding a target sequence.

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The response asserts that the claims do not encompass proteins that do not bind DNA. The specification must provide a written description of the claimed invention. For the written description requirement, an applicant's specification must reasonably convey to those skilled in the art that the applicant was in possession of the claimed invention as of the date of invention. *Regents of the University of California v. Eli Lilly & Co.*, 119 F.3d 1559, 1566-67, 43 USPQ2d 1398, 1404-05 (Fed. Cir. 1997); *Hyatt v. Boone*, 146 F.3d 1348, 1354, 47 USPQ2d 1128, 1132 (Fed. Cir.1998). Another objective of the written description requirement is to put the public in possession of what the applicant claims as the invention. See *Regents of the University of California v. Eli Lilly*, 119 F.3d 1559, 1566, 43 USPQ2d 1398, 1404 (Fed. Cir. 1997), cert. denied, 523 U.S. 1089 (1998). Accordingly, the specification must describe the claimed subject matter in a manner that demonstrates that Applicant was in possession of the claimed invention as of the date of invention, the specification must put the public in possession of the claimed invention. Thus, the limitation of the claims to functional embodiments must be supported by the description in a manner that demonstrates that Applicant was in possession of the functional subgenus at the time of the invention.

The response asserts that because claim 57 is not subject to the written description rejection, claim 56 should not be included. This is not found persuasive, because the claims differ in scope. Claim 56 is broader in scope in that it encompasses C2CH zinc fingers, which are not adequately described for the reasons of record.

The response asserts that the description requirement is met with regard to non-naturally occurring proteins in that one could compare the sequence at hand with known naturally occurring proteins and determine whether the polynucleotide encodes a non-naturally occurring

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protein. This is not found persuasive, because the claims do not sufficiently distinguish between naturally occurring and non-naturally occurring proteins and thus a more complete description of naturally (or non-naturally) occurring polypeptides is required.

For these reasons, and the reasons made of record in the previous office actions, the rejection is maintained.

Applicant's arguments, see page 14, 2nd full paragraph, filed 5/14/2007, with respect to the rejection of claims 2, 4, 26-28, 30-32, 54 and 55-61 have been fully considered and are persuasive. The previous rejection of claims 2, 4, 26-28, 30-32, 54 and 55-61 has been withdrawn. The response provides evidence that the UMSBP zinc finger of Abeliovich does not contain the alpha helix required by the claims.

With respect to the rejections of record based upon Green et al, the response asserts that the term "engineered" in the claims refers to proteins whose structure and composition result from rational criteria and algorithms and proteins whose production results primarily from an empirical process such as phage display. At page 10, lines 17-29, the specification describes a "designed" zinc finger protein as "a protein not occurring in nature whose structure and composition results principally from rational criteria" and describes a "selected" zinc finger protein as "a protein not found in nature whose production results primarily from an empirical process such as phage display." The specification notes that "designed and/or selected" zinc finger proteins are also referred to as "engineered" zinc finger proteins. Thus, the term engineered encompasses designed and selected zinc fingers, among others. These terms are not explicitly defined by the specification and are given the broadest reasonable interpretation. Green et al teach the substitution of a zinc finger residue which results in the claimed structure.

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It is unclear how the thought process behind the choice of mutation has an effect on the claimed structure.

For these reasons, and the reasons made of record in the previous office actions, the rejection is maintained.

With regard to Applicant's arguments directed to the rejections under 35 U.S.C. 103, all arguments are directed to the newly amended claims (e.g., amended claim 30). As discussed above, the amendments have not been entered. Therefore, the arguments are moot and will not be addressed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Dunston whose telephone number is 571-272-2916. The examiner can normally be reached on M-F, 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached at 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer Dunston, Ph.D.
Examiner
Art Unit 1636

/JD/

CELINE QIAN,
PRIMARY EXAMINER

